



# Fire Fighting Foam and Foam Hardware



# Who We Are

SKUM, a leading brand of firefighting foam agents and hardware, is a global standard in fire suppression for life-critical, heavy industry applications that demand proven performance. That performance is critical when it comes to helping protect vital assets against the most extreme hazards.

The SKUM portfolio of products provides a broad range of solutions developed over a 75 year legacy of product innovation and industry-leading expertise.

SKUM products offer fire protection solutions for diverse markets, including oil and petrochemical, logistics, marine, and offshore industries around the world.



Proven leadership in helping to protect high-value, high-risk facilities ►

World-class engineering and innovative problem solving ►

Highest quality construction ►

## Why SKUM Products?

◀ End-to-end solutions

◀ Best-in-class sales, service and technical support

◀ Collaborative approach

◀ Reliable partner

# Hardware Systems

## Made for the Real World

SKUM offers a range of solutions to meet the challenging requirements of fire suppression in special hazard applications. Our products are designed to offer tailored protection, whatever the application.

Both fixed and mobile discharge equipment is manufactured from the highest quality materials for outstanding durability, lighter weights and high value. This advanced quality of manufacturing helps ensure that systems are designed for power, low maintenance and extended life.



### Foam Generators

Generators are designed for all hazards types using Low, Medium or 3 dimensional High Expansion applications. Amongst famous SKUM innovations is HotFoam a recognized unique technology for Inside Air High Expansion application.

- HG – Inside Air high expansion generators
- HiEX – Outside Air high expansion generators
- MRM – Medium expansion generators
- MLB – Low expansion foam generators
- B1 / SPR – Low expansion foam nozzles



### Monitors

High capacity discharge devices that deliver large quantities of water and/or foam accurately to the affected fire hazard, available as portable, fixed, manual and remote units in varying sizes.

- FJM – Manual
- FJM-HY – Hydraulic
- FJM-WTO – Oscillating
- FJM-P – Portable
- FJM-EL – Electric



### Tank Protection

Your ultimate choice of Tank protection devices for your Fixed or Floating roof flammable liquid storage tanks using over the top or Sub-surface discharge application methods.

- OFG – Foam chambers
- OFGR – Floating roof tank generator
- PFG – High back pressure generator
- SM – Sealing membranes



### Portable Foam Equipment

Flexible foam solutions developed to mobilize to the scene of a fire for various hazardous areas where flammable liquids are present.

- FOMAX / Mini Fomax HiEX generators
- KR03-90 – Foam pistol
- Z – Inductors
- MLR – LOW expansion branch pipes



### Proportioners

Introduce foam agent into a flowing stream of water to produce a foam solution. There are many methods of proportioning, but fixed foam systems typically use balanced pressure proportioning equipment.

- PP, PPW – Pump proportioners
- MI / ZF – Inductors
- TP, TPW – Bladder tank proportioners
- PI – Around the pump



### Bladder Tanks MTB

A component of a balanced pressure proportioning system that utilizes incoming water to apply pressure to a bladder, which supplies pressurized agent to a proportioning device.

- MTB – CE tanks
- MTB-A – ASME tanks
- WAFV – Hydraulic valves



### Trailers

Mobile fire protection equipment with a range of performance options designed to deliver effective firefighting solutions quickly to the scene of a fire incident.

- Raft – Foam tank monitor trailer
- FlatBed – Monitor trailer
- SK140 – Foam trolley

# Firefighting Foam Agents

SKUM high performance foam agent solutions provide effective fire suppression across a wide range of applications, helping to protect hazardous areas in the most demanding of environments. Complete range of Synthetic and Protein based firefighting foam agents across all combinations of typical concentration 1%, 3%, 6%, 1x3, 3x3, 3x6.

## Aqueous Film Forming Foam (AFFF)

High performance synthetic foam agents comprised of detergent and fluorocarbon surfactant suited for use on class B hydrocarbon fuel fires.

SKUM AFFF 1%

SKUM AFFF 3%

SKUM AFFF 6%

## Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF)

High performance synthetic foam agents comprised of surfactant, fluorosurfactant, polymer and fluoropolymer suited for rapid suppression of large scale class B Polar Solvent and Alcohol fires.

SKUM ARC 1x1

SKUM ARC 1x3

SKUM ARC 3x3

SKUM ARC 3x6

## Fluoroprotein Foams

Performance Protein Foam agents producing a stable foam with a high heat resistance and good burn-back resistance.

SKUM FP 3%

SKUM FP 6%

## Alcohol Resistant Fluoroprotein Foam

Superior alcohol resistant fluoroprotein foam agents for severe and diversified marine applications, used in the extinguishment of flammable hydrocarbon and polar solvent liquid fires.

SKUM UNIVERSAL 3X3

SKUM UNIVERSAL 3X6

## Class A Foam

Fluorine-free foam agents designed to combat fires involving ordinary combustible materials, like wood, paper, coal, rubber, and plastics by making water more effective.

SILV-EX G

## High-Expansion Foam

Typically Fluorine-free foam agents as not containing any Fluorosurfactants, they are aimed to form primarily a High volume of foam for 3 dimensional fires.

They form a foam blanket that prevents the release of fuel vapour and provides additional cooling due to the higher water content.

HOTFOAM 2%

METEOR X 2%

METEOR T

METEOR TRAINING 3 or 6%

Our SKUM Foam Agents are available with multiple version within each of the product types depending on Foam types, Freeze Protection and required applications and Listings. Please refer to Foam Concentrate Table on page 7.

## Approvals

All SKUM agents are rigorously tested to challenging standards, meeting all approved accreditation requirements and offering total performance confidence.

Approvals are not relevant within this section for foam agents.

- ✓ EN1568 Part 1, 2, 3 or 4
- ✓ UL-162
- ✓ FM
- ✓ Airport ICAO level B and C
- ✓ Marine IMO Msc 670, 1312 and 1384 Type Approvals
- ✓ Marine MED B and D
- ✓ LASTFIRE
- ✓ CNBOP, OKF, DNV, GOST, KFD



# Multiple Market Solutions

Industries in which the presence of flammable liquids is common, there is need for innovation, flexibility and above all, performance. Precisely engineered systems hardware and high quality AFFF and ARC foam concentrates give Marine & Offshore, Aviation, Petrochemical and other high-risk industries the protection they require, the confidence they demand.



## Aviation & Industrial

Getting foam to the fire quickly and completely is key to aviation fire suppression. Military and civilian aviation and industrial facilities have come to count on SKUM for technical knowledge and innovation in protecting:

- Aircraft Hangars
- Airports
- Avionics Facilities
- ARFF Crash-Fire Rescue
- Engine Test Facilities
- Hangars
- Helistations / Landing Pads
- Maintenance / Repair Areas
- Manufacturing Plants
- Power Plants
- Refuelling / Fuel Storage Facilities
- Transformers
- Warehouse
- Waste Treatment Plants



## Marine and Offshore

For facilities separated from land by water, fire protection must be self contained and all encompassing. From tankers and shipping fleets on the move, to fixed deep-water drilling platforms, SKUM hardware and high expansion/synthetic foams deliver an extra measure of security and protection to:

- Marine Vessels
- Crude Oil Tankers
- Oil / Chemical Tankers
- Offshore Platforms
- FPSOs and FSOs
- Supply vessels
- FIFI and Tugs boats
- LNG Tankers
- Navy ships
- Jetties
- Dry Docks
- Cargo Holds
- Engine and Pump Rooms
- HeliDecks



## Petrochemical and Energy

SKUM fast deploy solutions can be found the world over, helping to; keep petrochemical, chemical, oil and gas facilities safe, protect lives and ensure the environment isn't harmed in the process, 24/7.

- Chemical Plants
- Power Generation Facilities
- Refineries
- Tank Farms, Storage Tanks and Dikes
- LNG Terminals
- Truck Loading Racks
- Hazardous Material Spills
- Heliports
- Onshore - Offshore Storage
- Pipelines & Pumping Stations

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- ✓ American Bureau of Shipping (ABS)
  - ✓ Hungarian Fire Protection and Safety Institution (SZIE YMETK)
  - ✓ Bureau Veritas (BV)
  - ✓ European Norme (EN 1568 and EN 13565)
  - ✓ China Classification Society (CCS)
  - ✓ Factory Mutual (FM)
  - ✓ Centrum Naukowo – Badawcze Ochrony
  - ✓ International Civil Aviation Authority (ICAO)
  - ✓ Kuwait Fire Department (KFD)
  - ✓ Lloyds Register of Shipping (LRS)
  - ✓ Przeciwpozarowej (CNBOP)
  - ✓ Russian State Fire Academy
  - ✓ Russian Maritime Register of Shipping (RMRS)
  - ✓ Gosstandart (GOST-R)
  - ✓ Det Norske Veritas Germanischer Lloyd (DNV-GL)
  - ✓ Underwriters Laboratory Inc. (UL)

# Service

We provide a comprehensive range of professional services to support our SKUM product range. These include laboratory-based testing, technical and design services through to onsite support and commissioning, field testing and assembly services. Our highly skilled teams offer an exceptional level of support, delivering world leading products and services.

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## Foam Testing / Analysis Service

Annual sample testing is a mandatory step by NFPA or EN15365 in ensuring that firefighting foams continue to perform as required for their specified applications. Accordingly, accurate foam sample testing – using the highest laboratory standards and data processing in the industry – is an integral part of customer support.

For more information, please contact your regional SKUM representative.



## Field Service

Calling on decades of experience, we operate specialised field support teams covering foam system commissioning, replacement of bladders for tanks, onsite agent filling and commissioning of electric monitor systems. Our teams are qualified to carry out onsite repairs and maintenance of equipment as required.

For more information, please contact your regional SKUM representative.



## Technical and Design Support

Our highly experienced team offers a range of technical and design support services, working closely with customers to develop systems to match the challenges of each application and environment, delivering individual and tailored solutions.



## Certification Training

We offer customised training based on individual customer needs. Training topics include protecting areas and facilities such as aircraft hangars, dikes, flammable liquid storage, refineries, tanks, and warehouses as well as suppressing vapour from flammable material leaks.

We have provided SKUM products training for contractors, designers, engineering firms, industrial and municipal firefighters, the military, and service technicians.

For more information, please contact your regional SKUM representative.

# Foam Concentrate

AFFF	SKUM AFFF						
	1% Plus	1% Master	3% UG	3% EG	3% Master	3% LT	6% EG
% Hydrocarbon	1%	1%	3%	3%	3%	3%	6%
Lowest temperature for use °C	-8	-29	+2	-5	-15	-29	-5
EN1568-1 (hydrocarbons medium Expansion)				Pass	Pass		Pass
EN1568-3 (hydrocarbons low Expansion)	1A	1A		1B	1B	1A	1B
Other standards		UL-162	UL-162	ICAO B	IMO1312	UL-162	ICAO B
		ICAO B			MED	ICAO B	
					ICAO B		

AR-AFFF Alcohol Resistant Foams	SKUM ARC						
	1x1 LT	3x3 UG	3x3 Plus	3x3 Master	3x6 UG	3x6 Plus	3x6
% Hydrocarbon	1%	3%	3%	3%	3%	3%	3%
% Polar solvents	1%	3%	3%	103%	6%	6%	6%
Lowest temperature for use °C	-29	-8	-10	-18	+2	-10	-18
EN1568-1 (hydrocarbons medium Expansion)			Pass	Pass			
EN1568-2 (hydrocarbons high Expansion)			Pass				
EN1568-3 (hydrocarbons low Expansion)	1B	1A	1A	1A		1A	
EN1568-4 (polar solvents low Expansion Acetone / IPA)	1C/1B	1A/1A	1B/1B	1B/1A		1B/1A	
Other standards	UL-162	UL-162	IMO1312	LASTFIRE	UL-162	IMO1312	UL-162
			MED			MED	
			ICAO B				

FLUORINE FREE	SILV-EX G	HOTFOAM 2%	METEOR T-10			
			T-10	T-15	T-15 6%	TRAINING
% Class A	0,1 to 1%					
% Hydrocarbon		2%	3%	3%	6%	3 or 6%
Lowest temperature for use °C	-10	-10	-10	-15	-15	-13
EN1568-1 (hydrocarbons medium Expansion)			Pass			Training
EN1568-2 (hydrocarbons high Expansion)		Pass	Pass			Foam
Other standards		IMO670	IMO670			
		IMO1384	MED			
		MED				
		EN13565				

PROTEIN FOAMS	SKUM					
	FP 3% EG	FP 6% EG	FFFP 3%	FFFP 6% Plus	Universal 3x3	Universal 3x6
% Hydrocarbon	3%	6%	3%	6%	3%	3%
% Polar solvents					3%	6%
Lowest temperature for use °C	-12	-12	-12	-12	-15	-12
EN1568-3 (hydrocarbons low Expansion)	2A	1A	1B	1B		
EN1568-4 (polar solvents low Expansion)						
Other standards	UL-162	UL-162	UL-162	ICAO B	IMO1312	IMO1312
Other standards	IMO1312				MED	MED
	MED					
			MED			

# Global Strength. Local Expertise. At your service.

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